

CLAIMS

What is claimed is:

1. An ophthalmologic instrument for microsurgery in an eye comprising:
 - a housing configured as a handle and a functional unit disposed thereon and an actuator supported within the housing in operative engagement with a sliding pin and connected with the functional unit; and
 - a tube shaped probe for operative engagement with the functional unit; and
 - a rod co-axially supported within the probe which extends into a head piece configured as a grasping element and having two arms separated by a slot, the two arms are configured each with a recess opposing one another and are movable relative to one another into an elastic pre-tensioning first position wherein both arms are spread apart and a second position wherein both arms are pressed together into a flush closure such that the two opposing recesses are formed together into a common recess for freely retaining and holding micro structures without squeezing or pinching the microstructures.
2. The microsurgical instrument of claim 1, further comprising a light guide connected to a light source and coordinated with the headpiece which projects from the probe in the direction of the common recess formed by the two arms.

3. The microsurgical instrument of claim 2, wherein the light guide has a front face from which light rays can emanate and be directed to the recess.
4. The microsurgical instrument of claim 2, wherein the front face of the light guide is configured as a convex optical lens.
5. The microsurgical instrument of claim 4, wherein the front face of the light guide is provided with an optical lens.
6. The microsurgical instrument of claim 2, wherein the front face of the light guide is configured in slanted relative to the longitudinal axis of the light guide, which is directed toward the recess.
7. The microsurgical instrument of claim 1, wherein each of the recesses of are bounded frontally by claw-like shaped legs integrally formed at the two arms and configured in such a way that when the arms are brought into a closed position, opposing edges of the legs can be pressed together for a flush closure.
8. The microsurgical instrument of claim 7, wherein each of the legs are provided with an edge which oppose one another and which are of a size smaller than one half the diameter of the rod having a cylindrical shape.

9. The microsurgical instrument of claim 1, wherein the recess of each of the arms starting from a frontal leg thereof in direction of the slot is arcuately shaped such that in a closed position the common recess has the shape of a tear drop
10. The microsurgical instrument of claim 9, wherein an inside length of the tear drop shaped recess is greater than the inside width of the tear drop shape.
11. The microsurgical instrument of claim 1, wherein the recess of each of the arms each starting from a frontal leg thereof in axial direction of the slot is arcuately shaped such that in a closed position the common recess has an elongated shape.
12. The microsurgical instrument of claim 11, wherein the inside length of the elongated common recess oriented in axial direction of the headpiece is smaller than then the inside width, which is oriented perpendicularly thereto.
13. The microsurgical instrument of claim 1, wherein the recess of each arm each starting from a frontal leg thereof in axial direction of the slot is arcuately shaped such that in a closed position the common recess has a circular shape.

14. The microsurgical instrument of claim 13, wherein the inside diameter of the circular shaped common recess is substantially the same as the outer diameter of the tube shaped probe.
15. The microsurgical instrument of claim 1, wherein the two arms starting from the cylindrical rod in direction of the frontal face of the head piece are tapered off with opposing side walls of the taper configured in one of a straight or an arcuate shape.
16. The microsurgical instrument of claim 1, wherein the cylindrical rod comprises two portions connected to each other, each of the portions having a profile cross section configured in semicircular shape which extend at one end into a head piece of claw-like configuration and a recess.
17. The microsurgical instrument of claim 2, wherein the tube shaped probe is configured for receiving the rod and the light guide and provided at one end with a first tube shaped piece supported in a guide sleeve and at the other end provided with a second tube shaped piece for co-axially supporting the rod.
18. The microsurgical instrument of claim 17, wherein the probe with the first tube piece and the second tube piece are formed as a unit which is axially movable relative to the head piece provided with the stationary rod.

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